

# MA3J7020G

## Silicon epitaxial planar type

For high frequency rectification

### ■ Features

- Forward current (Average)  $I_{F(AV)} = 500$  mA rectification is possible
- Small reverse current  $I_R$  (About 1/10 of  $I_R$  of the ordinary products)

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	20	V
Repetitive peak reverse voltage	$V_{RRM}$	20	V
Forward current (Average)	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current *	$I_{FSM}$	3	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

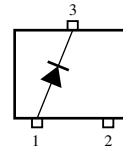
Note) \*: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

### ■ Package

- Code  
SMini3-F2
- Pin Name  
1: Anode  
2: N.C.  
3: Cathode

### ■ Marking Symbol: M4R

### ■ Internal Connection

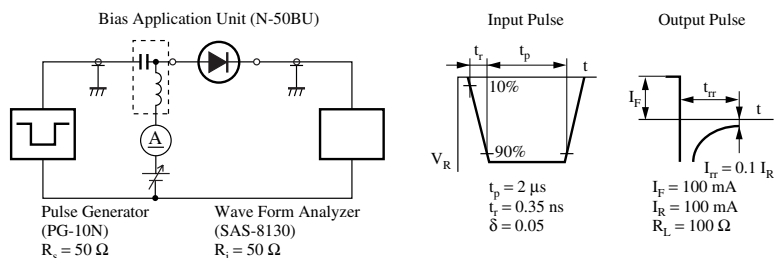


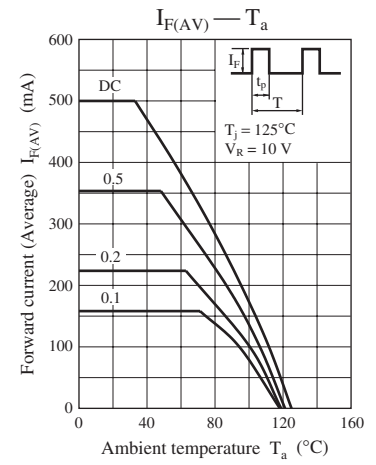
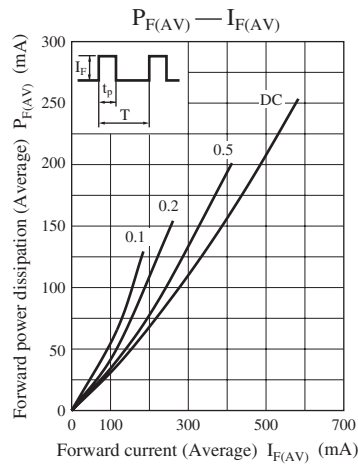
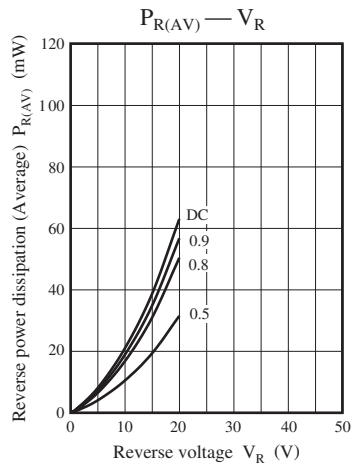
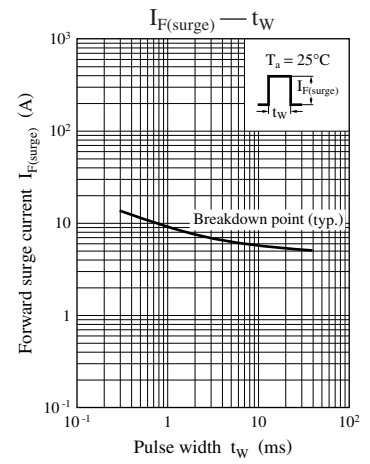
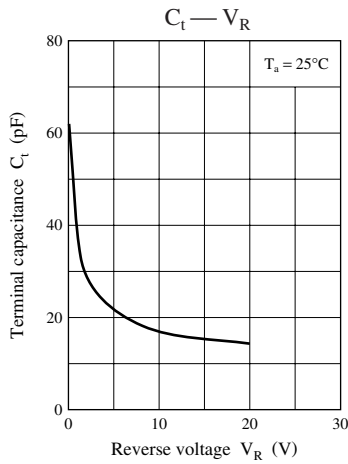
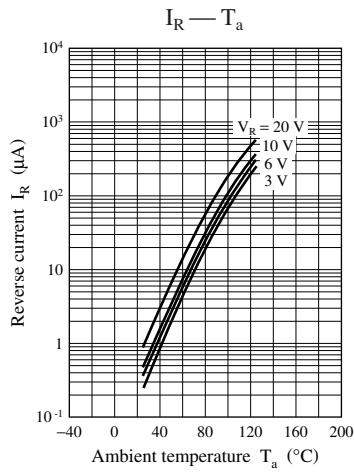
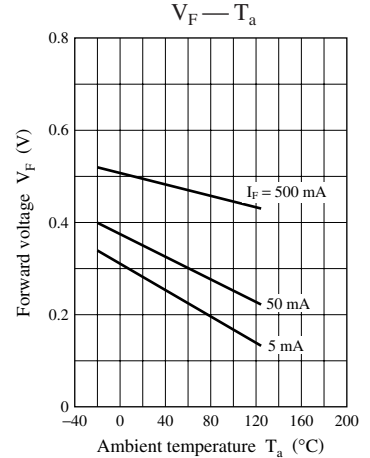
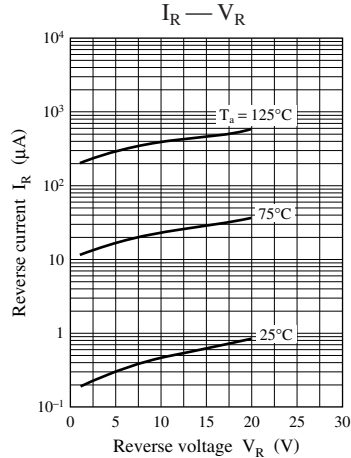
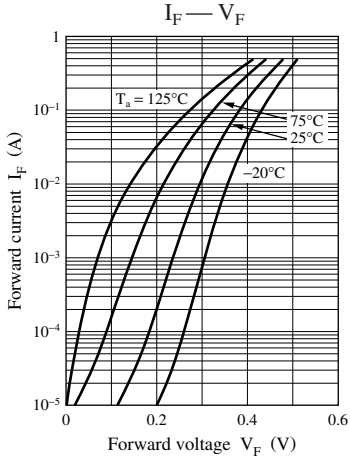
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 10$ mA		0.30	0.40	V
	$V_{F2}$	$I_F = 500$ mA		0.50	0.55	
Reverse current	$I_{R1}$	$V_R = 5$ V			1	$\mu\text{A}$
	$I_{R2}$	$V_R = 10$ V			10	
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		60		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 0.1 I_R, R_L = 100 \Omega$		5		ns

- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.  
 2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.  
 3. Absolute frequency of input and output is 400 MHz.

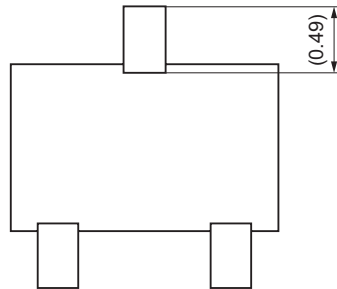
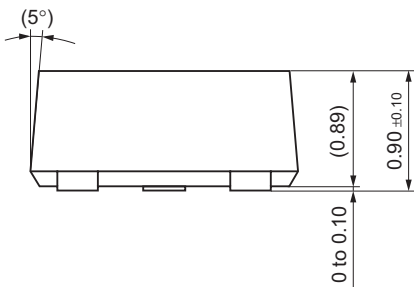
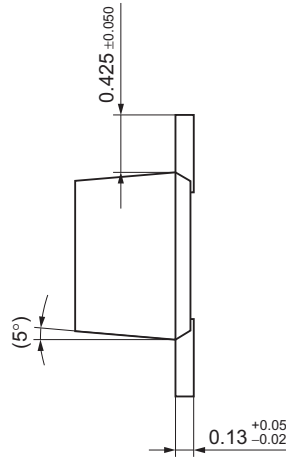
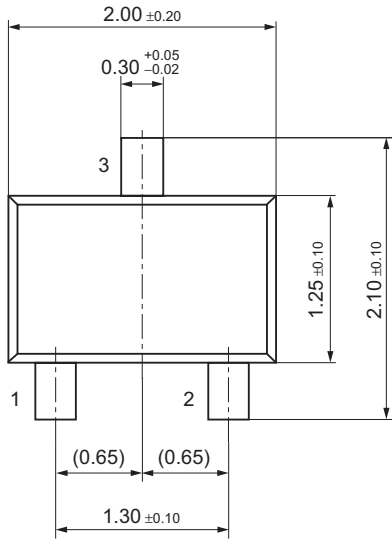
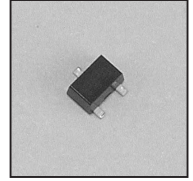
4. \*:  $t_{rr}$  measurement circuit





SMini3-F2

Unit: mm



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